

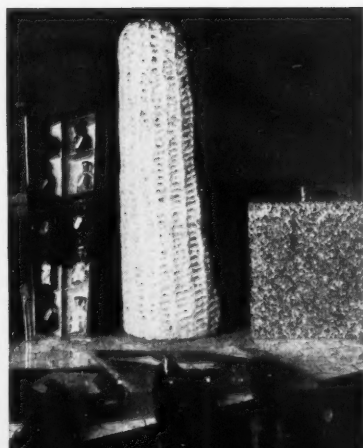


CONSUMERS' GUIDE

AUGUST 1939



CAN SIZES



MORE NEW USES



COOPERATION



LIMES

CONSUMERS' GUIDE

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EARLY this year the Secretary of Agriculture released a study made by the Department of Agriculture and said, "Today we cannot say that we have free trade between the States." In the report, Barriers to Internal Trade in Farm Products (see *Consumers' Guide* for March 13, March 27, and May 1, 1939), scores of instances were cited showing how State laws of one kind or another were limiting distribution and raising costs on practically every food product—milk, butter, eggs, poultry, meats, fruits, and vegetables.

Since that report was issued a trend has turned a corner to come back in the direction of freer trade between States. A recent announcement by the Department of Agriculture revealed that a number of barriers have been taken down by action of State legislatures and only 2 additional restrictive laws were passed this year.

Cooperation between State governors, State Departments of Agriculture, and other State officials, the Department of Agriculture says, offers hope that by 1941 many of the worst trade barriers will have been removed.

No diminution of the number of trade barrier bills introduced into State legislatures was reported, but better informed State legislators refused to enact them.

X OUT June 25, 1939, on your calendar and instead draw a circle around 2 other dates, January 1, 1940, and July 1, 1940.

June 25, 1939, was the day the principal label requirements of the Federal Food, Drug and Cosmetic Act, which became law on June 25, 1938, were supposed to go into effect. But now as the result of an amendment to the Act they do not go into effect until January 1, 1940, and in certain cases, some of the provisions may not go into effect until July 1, 1940.

Since a summary of the provisions which have been postponed may also serve to remind consumers of the benefits which await them under the new law when it finally goes into complete effect, here it is.

So far as foods are concerned, these are provisions that do not go into effect until January 1, 1940:

The provision requiring all coal-tar colors used in foods to be certified by the Food and Drug Administration.

The provision requiring labels to bear the name and address of the manufacturer, packer or distributor.

The provision requiring foods for which a standard of identity has been established to conform to that standard.

The provision requiring labels on foods to state, when this is the case, that the foods fail to conform to established standards of fill or quality.

The provision which requires foods to be called by their common names if they have any, and if they have no common name and are made up of 2 or more ingredients, to show on their labels all ingredients.

The provision which requires foods claiming special dietary virtues to be labeled with as much additional information as the Secretary of Agriculture may think necessary to prevent consumer deception.

The provision that any artificial color, artificial flavor, or chemical preservative be announced on the label.

So far as drugs and devices are concerned the amendment suspends until January 1, 1940, the following provisions:

The provision requiring coal-tar colors used in drugs to be certified by the Food and Drug Administration before use.

The provision that labels bear the name and address of the manufacturer, packer, or distributor, and a statement of the quantity of the contents of the package.

The provision which requires drugs containing habit-forming ingredients to give warning of this fact to consumers.

The provision requiring a drug to bear its common name if it has one, and to list its ingredients on its label if it is made up of 2 or more ingredients.

The provision which requires labels of drugs containing certain ingredients, including alcohol, to state exactly how much of these ingredients they contain.

The provision requiring drug labels to give adequate directions for the use of the drug, and to give warnings against their use under any conditions which might make them dangerous.

The provision which requires official drugs to be packaged and labeled according to the

directions contained in the United States Pharmacopoeia, the National Formulary, and the Homeopathic Pharmacopoeia, which are recognized reference works on drugs.

The provision which requires drugs susceptible to deterioration to be labeled with adequate warnings of this fact or to be packed in such a way as to prevent or retard deterioration.

So far as cosmetics are concerned the amendment suspends the provision prohibiting the use in cosmetics of any coal-tar colors not certified to be safe by the Food and Drug Administration. Also suspended is the requirement that labels on cosmetics give the name and address of the manufacturer, packer or distributor of the cosmetic, and its weight, measure, or numerical count.

Delay in putting some of these provisions into effect may extend even beyond January 1, 1940, in certain cases. For example, if the Secretary of Agriculture should find that some manufacturers have labels or packages bearing label statements which were made up before February 1, 1939, he may find that putting the law into effect 11 months later will cause undue hardship. In that case he can delay the effective date of the relevant provisions in the law until July 1, 1940.

Except for delaying the effective date of some of the provisions of the Food, Drug, and Cosmetic Law, the amendment made only one slight change in the law itself.

Under the original law, drugs containing certain narcotic ingredients had to bear labels giving the name, quantity, and percentage of these ingredients. This has been changed to require the name, quantity, or proportion of these ingredients.

The question might arise, What provisions in the Food, Drug, and Cosmetic Act are actually in effect now?

The answer is, every safeguard against poisonous, unsafe, or unwholesome foods, drugs, and cosmetics in the law except the one requiring the use of certified coal-tar colors.

For example, the provisions permitting the licensing and supervision of food factories during an emergency is in effect. So is the provision which requires new drugs to be submitted to the Department of Agriculture for testing before they may be used.

For a complete discussion of the Federal Food, Drug, and Cosmetic Law consumers are invited to write in for a copy of *Consumers' Guide*, July 1938.

OUR THANKS to the Farm Security Administration for the main cover illustration and for the pictures on pages 3, 4, and 5.

The South Looks to the Soil

Not only to produce better incomes, but also to pave the way to healthier diets, the AAA is working with southern farm families to overcome the handicaps of generations



FOOD, like air—though it doesn't come free—is everywhere. Hanging from trees, shooting up from the ground, roaming the ranges, swimming in the seas, darting over railroad tracks, stacked in great warehouses, crowding grocery shelves, cooking on kitchen stoves—there's food. Tons of it, binsful of it, platesful of it. Food to make bones grow strong and straight. Food to build healthy tissues to cover bones. Food to fuel bodies so they can work, and play, and create new life. And food enough for everyone of 130 million people to consume nearly three-quarters of a ton a year.

Yet one-half of America eats a diet that is below the safety line. One-half consumes the kinds and amounts of foods that short-

change their bodies. One-half lives on a diet too low in one or more elements essential to vigorous, sturdy life.

If a Nation's greatest wealth is its people, if a Nation's greatest liability is its badly nourished people, America has a job to do.

Scientists may be laggards in helping consumers define the difference between a top and a poor quality machine. But on the foods that humans should have, there they have done their job. They know the difference between safe and unsafe diets. In time, they will go on and improve their present knowledge. The line may move this way or that. But sufficient facts are at hand now on which to measure America's diet shortcomings, and on which to build toward a Nation, not one-half but two halves, well-fed.

Diets are poor, the scientists say, when they fail to be both well-balanced and sufficiently abundant. Every food has in it certain nutrients. These nutrients have different uses and values in the body. Some build





bones; some grow and repair tissues; some give energy. The body needs all these nutrients in the right proportion. Where diets are likely to be most deficient is in Vitamin A, in calcium, in Vitamin C. Foods richest in these nutrients are dairy products, eggs, vegetables, and fruits. Well-balanced diets include a sufficient quantity of these "protective" foods.

DIFFERENCES between diets below and diets above the safety line are clearly drawn. For example, among white farm operators in the South fair or good diets include 34 percent more eggs, 51 percent more butter, 32 percent more milk, 17 percent more leafy, green, and yellow vegetables, 79 percent more tomatoes, than do poor diets.

Now, of all the people who might be expected to have good diets, farm families, it would seem, come first. They live on the soil. They should know how to make the earth work for them. Bureau of Home Economics scientists have applied their yardsticks of good diets to families living in every kind of community and have found it is true that farm families as a whole have better diets than do families living in more populous communities and not directly engaged in extracting their living from the soil. But that degree of superiority is so slight as to be almost unimportant. Four out of every 10 farm families, they find, consume diets that are unsafe. In some areas families rate better than this; some rate worse.

Poorest fed of all farm families, they find, are those who live in the South. Not even well-to-do Southern farm families always get the kind of diet that puts them over the safety line. Four out of 10 Southern white families with incomes of \$1,500 to \$2,000 consume poor diets. Five out of 10 Negro families at this income level have poor diets.

Step down the income ladder and the proportion of poor diets grows. At the lowest rung, the families with incomes of \$500 a year or less (that means net income in cash and in kind) show greatest deficiencies. Almost two-thirds of the Southern white families at this level are eating meals that fail in one way or another properly to nourish them. Fifty-five out of 100 Negro families with this income are short-changed in health.

STATISTICS can be flat and insipid until you realize that behind them are handicapped human beings.

Recently 100 thousand children stood up to be measured. They were children living in different communities over the country. They came from families with different-sized incomes. Bureau of Home Economics scientists, taking their measurements, found that in every important body measurement, the children of poorer families lagged behind those financially better off. They found, too, that in areas where poor diets were most common, the physical development of the children lagged most.

Other scientists, studying sickness and the

WHEN incomes are low, the chance for healthy living is small. But land can be made to produce for human bodies as well as for pocket books. AAA helps southern farm families use their land wisely to do both jobs.

life span of people, have found that morbidity and mortality rates move—in the large—as the quality of diets changes. Where diets are poor, there sickness and short life is most frequent. Study of a group of 50 Georgia farm families, struggling at the barest subsistence level, showed that among 288 individuals, 14 had pellagra, 62 rickets, 70 defective vision, 196 defective teeth. Other scientists, scanning the health records of people throughout the country, see that days of sickness, weeks of inability to work, multiply as poverty and poor diets increase.

Nor are all the handicaps of inadequate food statistically measurable. They show, too, in the easy fatigue that overtakes even gentle exertion. They show in inefficiency at work. They show in discouragement of spirit. Buoyant spirits flourish on healthy bodies. Healthy bodies grow from food well-balanced and adequate.

AIR may come effortlessly, but everyone knows good diets have to be worked for. Between the growing and the consuming of food there must be toil and planning. There must be energy and income. There must be knowledge of the kinds and amounts of foods that make for maximum health and the desire to consume them.

It takes only one grain of horse sense to know that when incomes are low the chance for healthy living is small. Incomes of thousands upon thousands of farm families in the South are tragically low. Almost one-quarter of those not on relief live below the \$500 line. In New England only 6 out of 100 farm families have as little as this. In North Central States, there are 8, and in Pacific States 9, out of 100. Only in the Mountain and Plains States is the proportion larger than in the South. There, 27 out of 100 incomes are below \$500. While the proportion is larger, there are fewer farmers in Mountain and Plains States.

CONTRASTS become sharper even within the South. Operators of farms stand a better chance of getting larger incomes than do sharecroppers—the men who own no land, and often no capital of any kind. In return for the opportunity to produce a crop, they divide the income it brings with the person who furnishes them land, equipment, and workstock.

Operators in the South do better than croppers. While 17 out of every 100 opera-

tors not on relief have incomes below \$500, 46 out of every 100 sharecroppers are in this group.

Sharper still are the contrasts between white and Negro families. Among operator farm families, 11 out of 100 white nonrelief families fail to reach the \$500 income class; 38 out of 100 Negro families do, too. Among sharecropper families, lucky enough to keep off relief, 30 out of every 100 white families struggle along on less than \$500; 57 out of every 100 Negro families do, too.

No account is taken in these figures of people who have been forced to look to their governments for sums to help them struggle along. One-third of all the families receiving relief in the South are farm families. Almost two-thirds of all farm families in the whole country depending on relief live in the South.

Figures like these can get in your hair, if not in your blood, unless you stand back and look at them dispassionately. When all the figuring is done, another fact stands out sharp and clear.

Such a fact is this: The way we run our economics, good living cannot be got without money, but better living can be got when land is worked to produce not only money but food. Families that look to the land for cash income, can also look to the land for the meals they eat.

BUILDING better diets for farm families is more than a matter of dollars and cents in pocketbooks. When the diet graders in the Bureau of Home Economics stacked up Southern farm family diets they found that even with incomes under \$500, more than a third of the families succeeded in getting

good or fair diets. On the other hand, some poor diets were found among families in the \$2,000-\$3,000 income group.

Records do not show how much the success of small income families depended on their growing part or all of their food, nor how much the failure of the higher income group could be charged to buying all their food.

Like scissors that have two blades to cut, better use of land welded to better incomes can cut down the number of families whose diets are wretchedly poor.

Too many Southern families are not using their land to nourish their bodies. Of 3½ million farms in Southern States, more than 400,000 have no chickens, more than 900,000 have no milk cows, 800,000 have no gardens, more than 2 million have no plowable pastures for the feeding of livestock. Two million and a half have no orchards. Yet these are the sources of just the kinds of nutrients hundreds of thousands of families lack in their diets.

REASONS galore explain why the land has not been made to work more efficiently for human bodies as well as for pocketbooks.

Overcrowding is one. Today there are almost twice as many farm people in Southern States as there were at the close of the War between the States. A million more people are living on farms that produce cotton than were there 25 years ago.

Crowded lands mean small farms. When farms are small, every inch must be made to pull its weight in the family struggle to survive. Often too much of the land is used in a struggle to produce a cash income—from crops such as cotton and tobacco which humans can't eat—that will not only

buy goods the family needs but meet the expenses of production.

Working muscles and land this way has not brought the hoped for rewards. Depression at home and loss of markets abroad have slashed deep into the money these farmers earn. Costs of goods and services they need have too often remained high. The tighter the squeeze between low prices for what they sell and high prices for what they buy, the harder these farmers have worked to increase production of cash crops.

Insecurity of living is another reason behind poor diets. Fifty years ago, 3 out of every 4 farmers owned land. Today only 3 out of 5 own land. In the South, more than half of the tillers of the soil do not own a thimbleful.

Tenants, by whatever name, live in insecurity. With nothing to offer but their labor, sharecroppers live closest to the economic edge of life. Even the slender protection which their cropper contracts provide gives way under pressure of economic necessities and interests of landlords. Once off the land, they must take their chances with hundreds of thousands of other laborers for the chance to earn a day's wage.

Owners of land, too, are often forced on to the highways in search of the chance to work and eat. When land becomes too poor to work, when prices of farm commodities drop too low to fence the farm against its creditors, when families are swelled too large by unemployment in cities, then owners—as well as tenants—must take to the road.

INSECURITY such as this cuts deep. It cuts into the land. There is little time, and

[Concluded on page 14]

MILK is nature's most nearly perfect food, but 900,000 farms in the South report no milk cows. AAA helps southern farm families use their land so that producing milk for home consumption is possible.



PATCHES of ground can blossom into vitamins that bodies need, yet 800,000 southern farm families have no gardens. AAA encourages families in the South to raise their own fruits and vegetables.



Calling Cans to Order

A consumer problem takes its place in the headlines as the Temporary National Economic Committee, a Conference of Weights and Measures Officials, and the canning industry look into the confusion in can sizes



SEATED behind microphones at a long table in the expansive caucus room of the white marble Senate Office Building a Congressional Committee has, since last October, been peering into the economic machinery which makes the country go round.

Manufacturers, businessmen, economists, observers of every stripe and breed, have passed along to the Temporary National Economic Committee what they know about the economic machinery which serves the American people well in some years, badly in others.

Reporters at another table jot down notes, and photographers roam about, punctuating the proceedings with sudden flashes of light while they hold their cameras aloft.

Understanding the economic gears of America has become front-page news, front-page pictures.

ONE DAY recently, onto the center of this stage walked a new kind of witness. In the weeks and months of testimony-taking no "ultimate consumer" had ever appeared. Now here were 4 homemakers, asking to be heard. All of them women who manage a household, buy groceries, and see that a family is fed. One of them brought to the witness stand 18 cans and 3 bottles of tomato juice. Photographers, recovering from their surprise, leaped to take pictures. Reporters

began writing hurried notes. Committee members leaned forward, pushing microphones aside, the better to hear and see.

Everyday problems of consumers were in the news and on the front pages.

"Gentlemen," said the consumer testifier, "these 18 cans and 3 bottles of tomato juice were all purchased at one time in the same store. If you glance over them you will find they include 11 different brands, and they come in 17 different sizes. When you get a statistical chart and figure out what tomato juice costs per ounce in each of the 21 different containers, you find that tomato juice in this one store sells at 15 different prices.

"Consumers who want to buy the most economical kind of tomato juice simply can't unless they are willing first to do an hour of statistical work," the consumer representative continued. "If they prefer one particular brand but want to find out how much they are paying over the lowest price for their preference, they have some more computations to make.

"It's very hard," the consumer representative apologized, "to talk as confusingly as the picture actually is. But look at this chart."

Then while everyone in the room craned his neck to see the chart, she unrolled a statistical analysis of one consumer's adventures while buying tomato juice.

"Here are the tomato juices," she said, "the sizes of the cans, the fluid volume, the

price of each container in ounces, and the price for each 10 ounces of tomato juice."

TOMATO JUICE—SIZES AND PRICES
(In one Washington store on one day in May 1939)

No.	Size*	Fluid volume	Price	Price per 10 oz.
			Cents	Cents
1	211x315	10 $\frac{1}{4}$ oz.	2 for 0.09	4.4
2	211x411	12 oz.		.07 5.8
3	211x413	12 oz.		.07 5.8
4	211x414	12 $\frac{1}{2}$ oz.	3 for .25	6.7
5	300x407	14 oz.		.07 5.0
6	300x407	14 oz.	2 for .17	6.1
7	300x408	14 oz.	3 for .19	4.5
8	Bottle	1 pt.		.12 7.5
9	303x509	1 pt. 4 oz.	2 for .17	4.2
10	307x512	1 pt. 8 oz.		.10 4.2
11	307x512	1 pt. 8 oz.		.08 3.3
12	Bottle	1 pt. 10 oz.		.17 6.5
13	Bottle	1 qt.		.21 6.6
14	404x615	1 qt. 14 oz.		.21 4.6
15	404x708	1 qt. 18 oz.		.19 3.8
16	502x505	1 qt. 18 oz.		.25 5.0
17	502x505	1 qt. 18 oz.		.22 4.4
18	502x510	1 qt. 20 oz.		.25 4.8
19	Bottle	2 qt.		.27 4.2
20	603x700	3 qt.		.39 4.1
21	603x700	3 qts. 3 oz.		.39 3.9

* 211x315 means a can 2 $\frac{11}{16}$ inches in diameter and 3 $\frac{15}{16}$ inches in height, outside measurements.

With a teacher's wand in her hand the consumer representative conducted a lesson, based on the chart, for the interested committee members, reporters, and photographers.

"Notice," she urged, "that in no two packages do you find the combination of size, net weight, and price, identical.

THIS consumer used 21 containers to open a Congressional Committee's eyes to the canned chaos problem. All 21 containers of tomato juice, bought in one store at one time, included 11 brands, 17 different sizes, and sold at 15 different prices.

"Sizes vary by as little as one-sixteenth of an inch, and net weight varies by as little as one-half an ounce."

Turning to the committee members, the consumer representative put a question to them: "Just what is the difference in cost per ounce of 10½ ounces at 2 for 9 cents, and 12½ ounces at 3 for 25 cents?"

And that, the consumer representative might have said, is a measure of canned confusion in only one of the dozens of different foods housewives buy. When you multiply tomato juice by peanut butter and apple sauce, and baked beans, and coffee, and canned peas, and canned corn, it's plain to see that consumers must either abandon care in buying or go back to school to learn integral and differential calculus.

COMMENTING on this kind of consumer testimony, the Consumers' Counsel of the Department of Agriculture told the committee exactly why it should be looking into can sizes.

"... In a system of free enterprise," he said, "the choices which consumers make in the spending of their money provide the ultimate test of competitive virtue.

"Unless the consuming public is in a position to make this final judgment of approval or disapproval, there can be no assurance that business enterprise is serving the public interest. Insofar as consumers may not be able to know where their interest lies in the selection of goods and services, they cannot exercise this power to shape the affairs of industry toward maximum satisfaction of their wants."

Can sizes don't include all the confusions consumers must face when they buy goods, nor even all the problems they must face when they buy food, but you clean up a room by beginning in one corner of it and putting it in order.

WHILE CONSUMERS presented their grievances to the TNEC, across the town another group of people gathered to grapple with can-size problems, too. These were local, State, and Federal Weights and Measures officials. Once a year Weights and Measures officials meet in national conference to post each other on the developments in their field. This year can sizes received more attention than any other single question.

Reporting on the container problem, a conference Committee on Standardization of Packaged Goods first considered the problem

historically. Container problems are in the public eye today, the Committee explained, because business methods and living conditions have changed radically during recent years. For generations commodities were sold by standard units of weight and measure, but modern merchandising methods have changed the old grocery store from a rendezvous of bins and barrels to a display of packaged goods. The package is the thing today, and scoops, quart measures, bushel measures now find a resting place chiefly in museums.

It isn't that Weights and Measures officials want to bring back the good old days along with the horse and buggy and the hitching post in front of the courthouse. So far as food products are concerned these are good new days. Packaging has enabled manufacturers to give consumers cleaner food and a greater variety of foods. But granting that packers and canners have improved food products since the yesterdays, there are problems today arising out of the present-day use of packaged foods. The can disorder is one of these problems, a problem that confounds not only consumers but also Weights and Measures officials who are charged with seeing that consumers get full measure for their money and that honest business does not have to compete with dishonest or deceptive practitioners.

VARIOUS REASONS lie behind the mumbo-jumbo of cans that decorate grocers' shelves, these officials recounted. First of all, fruits and vegetables themselves don't come in standardized sizes. Corn on the cob has contours unlike a prune's. Asparagus demands a can into which you can't easily slip a sliced pineapple. Can sizes are whimsical in part because nature has whims.

Markets, too, have whims. One year tomatoes or tuna fish may be very cheap, while the next year they may be very expensive. Canners, of course, could go on packing the same amount of foods in cans year after year and simply raise and lower prices per can as the commodities in the cans go up and down in price. But consumers, canners believe, resist price changes. They want a 10-cent can of tomatoes or a 15-cent one of tuna fish. Charge them 8 cents for the can of tomatoes and they don't appreciate the bargain. Charge them 12 cents and they won't buy.

One way we meet this problem, some canners say, is to vary the size of containers with the change in price of its contents. Thus, whims of nature and the whims of the market are two explanations that are given to explain why cans come in so many different

sizes. Another reason, the canners offer, is one which stems from the whims of the people who complain about can sizes, consumers.

Restaurants and institutions, the packers explain, like extra large cans of food. Large families want a large can of food but one that is not as large as the institutional sizes. Middle-sized families want middle-sized cans of foods. Small families want a small-sized can of food. And bachelor men and women who live in apartments all by themselves want a can of food which contains one portion for one person.

A fourth reason put forward by canners for can-size confusion has grown out of the history of canning. Many canneries are local industries. There is no packing center for fruits and vegetables, the way Detroit is the automobile center of America. Canners have set up in business in every region of the country. When they first began, each region hit upon its own can sizes and shapes. When they grew up to maturity and began to buy their cans from national can manufacturers they carried on the tradition of their distinctive can shapes and sizes by ordering the sizes and shapes they had always used.

COMPETITION between the sellers of packaged foods is a fifth reason for the canned chaos.

This is the way it works. Two competitors are each in the business of selling tea, say. Each one sells a quarter-pound of tea in a package for 20 cents. Suddenly, to get an advantage over his competitor, Dealer No. 1 puts out a 3-ounce package of tea at 15 cents. The size of the box remains the same; but the contents have been reduced by 25 percent. Of course, this dealer is very careful to put the correct contents of the new package on the label; if he didn't he would be violating the law of most States, and a Federal law if his product enters interstate commerce. The label, therefore, reads where everyone can see if he looks long enough and hard enough, "Net weight 3



and the
juice."
PRICES
y 1939)

	Price per 10 oz.
09	4.4
07	5.8
07	5.8
25	6.7
07	5.0
17	6.1
19	4.5
12	7.5
17	4.2
10	4.2
08	3.3
17	6.5
21	6.6
21	4.6
19	3.8
25	5.0
22	4.4
25	4.8
27	4.2
39	4.1
39	3.9

diameter
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8 ounces." But very few people ever look, and very few ever see, and that, of course, makes them partially responsible for their own confusion. Not entirely, however, because sometimes they ask for a 4-ounce package of tea from their grocer and are given, all wrapped up, a 3-ounce package. Occasionally, this is done deliberately, more often it is done because not even the grocer can find his way around in the confusion of container sizes.

Consumers, however, accustomed to paying 20 cents, seeing a package of tea for 15 cents, say to themselves, "Oho, a bargain," and they stop buying the quarter-pound package of tea for 20 cents to buy the 3-ounce package of tea for 15 cents.

Competitor No. 2 is in a spot; he can continue to pack his 4-ounce package of tea and lose business to his competitor or he can put out a 3-ounce package that looks like 4 ounces.

"DEALERS," the report of the Weights and Measures Conference Committee says, "... are forced in order to meet competition to follow the lead of their competitors and adopt practices which they know to be irregular and which in many cases lead to conditions which are not to the best interests

of the majority of the producers themselves."

Talking about foods that line the pantry shelf of every consumer, the Committee cited 7-ounce cans of coffee instead of the 8-ounce cans consumers are accustomed to buying, and 13-, 14-, and 15-ounce cans of coffee instead of the familiar 16-ounce cans.

One distributor put up 13 ounces and 16 ounces of barley in identical packages and 14 and 16 ounces of pea beans in identical containers.

Since the paper container for milk has appeared one container manufacturer was approached and asked to make a 6-ounce, instead of the standard 8-ounce "pint" container. To his credit, he refused.

Beer comes in 6½-ounce, 7-ounce, 10-ounce, 11½-ounce, 12-ounce, 26-ounce, 29-ounce, 30-ounce, and 32-ounce containers.

There are 15 different-sized cans containing between 7 ounces and 31 ounces of tomato juice.

Matzoth, an unleavened bread which is used in the religious observance of Easter by Jews, comes honestly in 5-pound packages. Yet during Easter a year ago New York City inspectors discovered 1,100 storekeepers who handed customers 4 pounds and 9 ounces of matzoth when they were asked for a 5-pound package.

That's why cans and packages are confusing. "But," said the Committee on Standardization of Packaged Goods of the National Conference on Weights and Measures, "these reasons do not constitute a justification for perpetuating the confusion."

In a report that was accepted by the Conference as a whole, this Committee said:

"There is absolute necessity for the standardization of the quantities of all commodities now sold in packages, whether of food or otherwise. Present practice leads to fraud, deception, and unfair competition." And, the Committee continued, "Due to the interstate nature of this problem it must be remedied by Federal law."

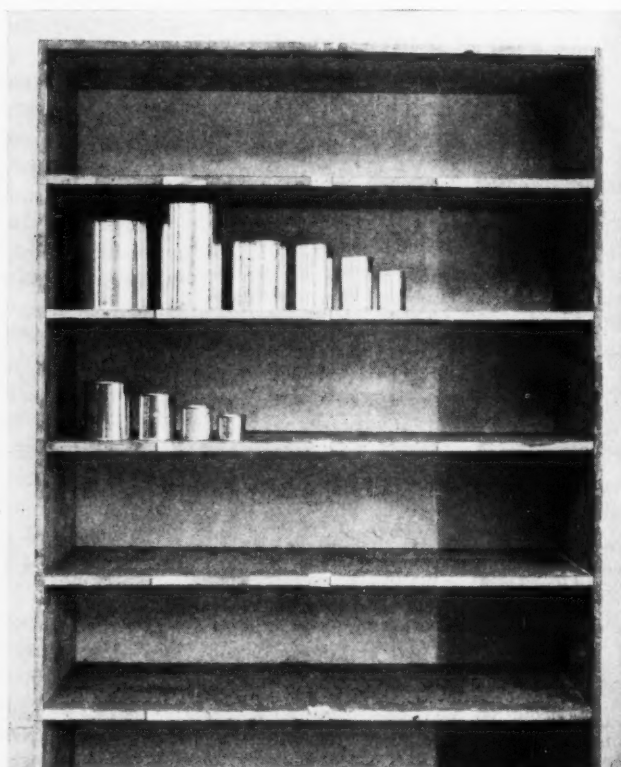
That is their solution.

NOW COME THE CANNERS with their formula for calling up order out of the canned chaos, and—to mix a metaphoric salad—for getting the sand out of the economic spinach.

Despite all the valid reasons for eccentric cans, the canners say, we do not object to simplifying can sizes. What we do object to is any attempt to force canners, by wielding a law, to do what they will do and want to do voluntarily.

Pointing to the history of their own

THERE are 52 different can sizes on the shelves to the left, but on the shelves of all the stores where consumers buy there are said to be at least 155 can sizes. On the shelves to the right are 10 cans in easily distinguishable sizes. A State Weights and Measures Official offers these as an example of what a vigorous effort to simplify can sizes might do to simplify buying problems.



efforts, they remind the people who want a law that canners have already developed simplified can practice recommendations through the Division of Simplified Practices of the National Bureau of Standards.

This Division, which was created in 1922, has as its job the function of cooperating with America's industries for the purpose of eliminating the superfluous sizes and shapes of manufactured products.

The Division confers with manufacturers, distributors, and consumers in an attempt to work out methods for the elimination of useless and confusing variations in sizes and shapes. Beginning with the sizes and shapes that manufacturers actually use, the Division and industry together go through them and decide which ones can be done away with. When a set of suitable practices is finally ready for recommendation, it is submitted to the manufacturers, distributors, and consumers of the products concerned. If approved by manufacturers producing 80 percent of the commodity in question, and if there is no substantial disapproval by others, the recommendations are promulgated by the Department of Commerce.

FIRST STEP toward simplified practices applying to cans was taken in 1928. At that time the canning industry got together through the offices of the Division of Simplified Practices to work out a set of can recommendations reducing the number of can sizes to 27. These recommendations, which were finally promulgated officially in 1934, proposed that canners voluntarily cut can sizes to 27.

Three years later the canners tried to get the wrinkles out of their schedule of recommended can sizes by amending it to reduce the number of can sizes to 21. That was in 1937, but a Division survey of the 1937 pack showed that cans still come in more than 155 different sizes. Now that legislation has been proposed by Weights and Measures officials, the canners are working with the can-size problem with renewed energy, this time through another revision of the original schedule.

The trouble with the first two attempts, the backers of the new can-size code say, is that the starts toward a solution of the problem were made from the wrong direction. In the first two attempts, the recommendations sought to standardize the size of cans without paying any attention to what went in the cans. This time the canners are going at the problem differently. They are sizing up the cans by looking at the commodities that go into the cans first.

TAKING into account both the need for a reform of can sizes and the cost that any changeover would place upon canners, the canners, with the help of the Division of Simplified Practices, tackled the problem with two principles to guide them.

First, it was decided, "the sizes selected for each product must be such as prevent consumer deception; that is, there must be sufficient differences in appearance and in the contents of the can to prevent confusion in buying.

"Second, the sizes selected should be from those now in use by the industry so as to reduce to a minimum the expense incurred in adopting the recommended list."

On this basis the Committee on Simplification of Containers suggested for the consideration of canners a tentative list of 33 can sizes. Additional sizes were suggested by individual canners and under the new plan put out for approval.

Under the new plan 44 can sizes have been recommended. Of these 44 can sizes, one can size has been recommended for use with 56 products, 21 can sizes are recommended for use for more than one product, and 23 can sizes are recommended to be used for one product each.

Tomato juice, when these recommendations are finally adopted (which should be in time for the 1940 pack), will come in 10 can sizes instead of the 44 can sizes in use as reported to the Division of Simplified Practices, or the 18 can sizes which the consumer witness reported to the Temporary National Economic Committee she had found in a single store. (Bottles are not affected by the can recommendations.) This is the largest number of sizes allotted to any one product. Most commodities under the recommendation will come in 4 or 5 sizes.

RIGHT NOW the new voluntary rules for can conduct are being circulated among canners, distributors and consumers for approval. When they are approved by what the National Bureau of Standards calls adequate representation of these groups, they will be promulgated.

Promulgation of the new recommendations means that canners and packers have a set of standards to use if they wish to. They will be under no compulsion; they will be violating no law if they don't choose to simplify.

AND THERE the issue rests. Consumers don't have to be told how much wear and tear on their arithmetic standardization might save. Nor do advocates from industry need to have pointed out to them gains that might

come from standardized can sizes. They point to the economies which simplification would bring by reducing the number of dies and machines necessary in making cans; to the simplified inventories it would make possible; to economies in labeling, packing, and shipping.

THE ISSUE, drawn clearer now, is whether these changes shall come about through laws or through voluntary trade action. The city and State Weights and Measures officials at the Conference urged the former. The industry urges its voluntary plan. Consumers, so far as we know, have not yet had the alternatives placed before them for their choice between the two.

Anyone may obtain, without cost, a copy of the Report of the National Conference of Weights and Measures Committee on Standardization of Packaged Goods from the Division of Weights and Measures, National Bureau of Standards. Copies of the proposed Simplified Practice Recommendations for Sizes of Cans for Fruits and Vegetables (SP-2763) can also be obtained free from the Division of Simplified Practice, National Bureau of Standards, Washington, D. C.

ALCHEMISTS and philosophers spent the better part of the Middle Ages looking for a Universal Remedy, but today most people have given up their search for philosophers' stones, except perhaps the toothpaste company which recently drew a Cease and Desist Order from the Federal Trade Commission.

This credulous company advertised, to what it hoped would be equally credulous consumers, that its toothpaste was a competent, efficient, germicidal or antiseptic agent; that it removed stains from the teeth, kept the mouth thoroughly clean and healthy, assured consumers of sound teeth, and restored brightness to dull teeth. It was, the company said, concentrated to the point that it was more economical to use than other toothpastes, and it would do things beyond the capacity of other toothpastes.

Wonderful, all of it, if it were true, but the FTC turned the toothpaste and the claims over to a modern scientist, and all the pretensions evaporated in a test tube. About all this toothpaste could do was what other toothpastes will do, that is, remove surface stains if the people who use it brush their teeth thoroughly. The toothpaste company was ordered to discontinue its misleading representations.



STALKS from this Louisiana sugarcane field, with the juice extracted, may go into the laboratory a waste product, come out as a high-grade raw material for rayon and plastics. A chemist in the Department of Agriculture has perfected a method for making cellulose (a base material for rayon) from the bagasse (below). Latest research on bagasse has resulted in the manufacture of low-cost plastics (right).

Turning Waste Into Wealth



*More new uses for farm products and waste products, discovered each year, show how science is making agriculture important in industry as well as in food and feed production**



CORN comes out of the fields headed for human and animal larders. En route somebody pulls a switch and the corn is shuttled onto a branch line, then into a laboratory test tube.

Simple as it looks on the cob, corn becomes a complex subject for the chemist. As a result of his work, from corn today are made 15 separate manufactured products. Those products go into everything from explosives to paper, from perfumes to corncob pipes, from wallboard to alcohol. Science is doing its share toward finding many uses for corn besides food for humans and animals.

And science is doing its share, too, for the farmer who is looking for new fields to conquer, fields not of the store counter and kitchen, but fields of industry.

No infant upstart in the laboratory is this science of merging industry with agriculture. While the past few years have seen a renewed interest by industry and private laboratories in the science, workers in the De-

partment of Agriculture, and in other Government and endowed institutions have for years been attempting to solve the dual problem of farm wastes and surpluses and inadequate farm income. One recent study shows that today from 86 agricultural products come 133 different raw materials that are used by industry. These raw materials make 240 different manufactured products, which in turn have 400 different uses.

From the beginning scientists peered into the mysteries of corn. America produces 2½ billion to 3 billion bushels of corn annually—about 60 percent of the world's crop. Nine-tenths of that crop is used for animal feed. But market outlets for feed have been closing up since the war years.

For a long time industry has used corn for the starch in the corn kernel.

The starch products of corn go into foods, puddings, ice cream, jellies, jams. Big consumers of the starch also are laundries, paper and textile manufacturers, and makers of explosives, adhesives, and dyes. Each bushel of corn yields 30 pounds of starch.

STARCH is not the only product of corn that is starred in industrial laboratories. That artificial snow you see in movies may come from corn. Cold-water paints sometimes have their origins in the chemical mysteries of corn, as do pastes, fillers, and sizing products.

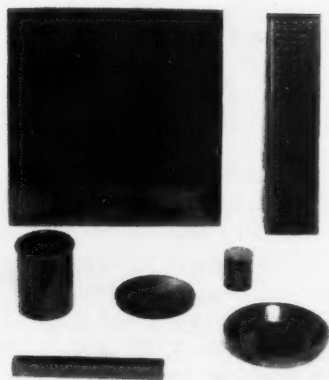
Much has been written and much has been prophesied for the future of corn as a base for fuel. Fuel alcohol that depends partly on corn for its manufacture, used as a 10 percent blend with gasoline, can furnish power for automobiles or gasoline-type engines. A plant in Kansas has made such fuel with some success. But chemists shy away from predictions. Most of them agree that so long as our petroleum reserves hold up, fuel alcohol will play a secondary role in the filling station.

Chalk up to the credit of corn also its use in plastics, in the manufacture of leather and rayon, in the manufacture of backs of carpets, and in the manufacture of various chemicals. From the corncobs come absorbents, materials for packing and polishing,

* Second of two articles on new uses for old products. The first appeared in the July 1939 issue.

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while from the stalks are made insulating materials and wallboard.

Third-ranking among the cereal crops of the country in total tonnage are oats. Topped only by corn and wheat, this food used for animals and in cereals has an annual harvest of around 18,000,000 tons a year. The industrial hope for oats lies in the straw and the hulls. From these have been made fuel oil and gas, cellulose, building board for construction work, insulation and absorbent materials, drugs, paints, varnishes, and a host of related products.

High up on the chemist's research list are agricultural products that never find their way to the markets. These are the agricultural wastes.

AGRICULTURAL WASTES include such products as straw, stalks, stems, hulls, cobs, shells, pods, bagasse, and so on. Most often they are back-tracked to the farm to be used for fuel, litter, animal feed, and other farm purposes. A large part of the wastes is burned or left to rot. Some 200 million tons of these agricultural byproducts annually must be disposed of by the farmer. In themselves, their dollar value is practically nil. But science sees in them a treasure whose price tag might be several hundred million dollars if it were possible to redirect them into industrial channels.

A beginning has already been made on converting these farm wastes into useful products. The strawboard industry makes use of straws, stalks, and stems. Insulation for homes and buildings comes from bagasse, cornstalks, and straw.

Furfural, whose source is oat hulls, is used for production of synthetic resins, purification of natural wood resins, in the refining of lubricating oils, and as a paint remover, solvent, and preservative. Furfural is also being explored as a source for alcohol, as a wetting agent, and as an ingredient for low-

cost road building. Its possibilities in the paint industry and for manufacture of insecticides are being investigated, while some chemists foresee the day when this farm waste shall be routed to refineries to be converted into fuel for Diesel engines.

From practically all farm wastes comes lignin. Forty-five million tons of it a year are estimated to be destroyed or wasted. The laboratory has mapped the way for lignin to be used as a major natural source for perfumes, aromatic products, and flavorings. Many chemical industries plan to use it in plastics and for structural purposes. Also from lignin come basic ingredients of tanning agents, core binders, road binders, dust settlers, adhesives, dye diluents, preservatives, and fertilizers. Chemists foresee the day when this valuable farm waste will play a major part in the textile industry as sizing and filler.

"Hemicelluloses" to the layman is a word that is part of the mysterious vocabulary of the scientist. Some agricultural wastes—oat and rice hulls, cottonseed hulls, cereal straws, corncobs—are 20 to 35 percent hemicellulose, the chemist will tell you. He has checked up the family tree of hemicellulose and now is back at the laboratory peering further into its mysteries. Some day, it is predicted, agricultural wastes containing this chemical will be side-tracked to paper-making plants, there to become a plentiful and cheap raw material for use in the manufacture of paper.

Headline news on the chemical front only a few weeks ago was the report on sugarcane bagasse made by chemists of the Department of Agriculture working at the Agricultural By-Products Laboratory at Ames, Iowa.

SUGARCANE BAGASSE (the stalks remaining after the juice has been extracted) once was rated as a nuisance by the sugarcane grower. Then it found a place in the manufacture of wallboard and now this waste is hailed as a new source for making low-cost synthetic plastics.

Three different methods have been developed for the manufacture of plastics from bagasse. Two of them yield products that do not shatter easily and in fact will not break when struck hard enough with a hammer to cause a dent. With this new cheap source for one of the major ingredients of plastics, scientists predict that the plastics industry may be able to branch out into the manufacture of furniture, binding materials, and automobile parts on a large scale.

From plastics made by the first and cheapest method chemists predict will come bath-

room tile suitable both for floors and walls. The plastic is waterproof, and in addition to having the wearing quality of wood, can be sanded and repolished.

Second method of making the plastics from sugarcane bagasse—slightly more expensive—yields products of high bending strength. These do not warp, and may be sawed, drilled, and even nailed. Consumers of a year or a decade hence may be using card-table tops, desk tops, and building panels made from these plastics.

Last method developed makes a plastic which in quality is half way between those made by the 2 other processes. This plastic also makes good table tops, desk tops, and similar products.

How long it will be before some enterprising manufacturers go into large-scale production of plastic products made from sugarcane bagasse remains to be seen. There is still much to be done in the way of research and in solving production cost problems, but the chemist can point to an accomplishment that may some day mean a new source of income for the grower of sugarcane.

CHEMISTS also are using sugarcane to make industrial alcohol, wallboard, insulation, acoustic material, and see in it a possible source for paint and varnish fillers.

Forest products have always been used in industry, and make everything from beams to toothpicks, telephone poles to rayon, fence posts and railroad ties to furniture and newsprint paper. But in the last 30 years industries founded on ceramics, concrete, metals, and plastics have grown up to challenge the mastery of the forest.

But people depend on forests, too, for their living, and science is exploring new uses for forest products which will make for better income for the 6,000,000 people who are dependent on them.





THE TALL and slender southern pine is now food for the roaring newspaper press. One plant has been built and others are in the blueprint stage for the manufacture of a domestic supply of newsprint from the pine forests of the South. Rayon also may come from such pulpwood (above) as is piled up beside this factory.

One of the more promising of the new outlets for forest products is the paper industry. We still import 5 to 6 million tons of paper and wood pulp annually. Newsprint paper is a large proportion of this, but a native source for this newsprint could cut the cost measurably.

THE SOUTHERN PINE is the new hope for newsprint. One plant is already in operation in the South manufacturing newsprint from Southern pine, and plans are being drafted for additional plants.

From the Southern pine, too, may come cellulose for the rayon industry, which when developed may give Southern farmers a new source of income.

The list of products made from wood is almost endless. Today, the range is varied enough to include plastics, sugars, and alcohol, pulp, vanillin, tanning agents, road binders, cement setting agents, and perfume bases. Wood resin is used in the manufacture of disinfectants, and, equally as well, in the making of tires and batteries for your automobile.

Like the soybean, tung nuts came to these shores, a stranger from the Orient, and remained to be adopted when it was found they thrive on certain parts of the American soil. 1923 is the year tung nuts went into commercial production in this country. In 1938 we grew 20 million pounds of nuts which made 4 million pounds of oil, but we still import 175,000,000 pounds a year—mostly from China.

Not as versatile as the soybean, tung nuts nevertheless have found themselves being

used in an ever-widening industrial field. Varnishes and enamels have first claim on them. Tung oil is water-resisting, making it ideal for dried varnish and enamel films. The beautifully carved Buddha idols and Chinese boats and bridges have been known to exist for centuries because of the protective covering of tung oil. Today, American industry is learning how to use that same tung oil for the same purposes, and at the same time is developing a new crop for the farmer. Tung oil is also used to dress leather, and to varnish furniture and floors. The Chinese make India ink from it and combine it with other substances to calk their junks. The waterproofing properties of tung oil make it valuable for coating paper and other materials, and in construction work, while it is also used in the manufacture of linoleum and printing inks.

Production of citrus fruits has been reaching record highs in the past few years. Economists behind the scenes, foreseeing serious surplus problems in the near future, have taken their dilemma to research chemists. Already chemists see the possibility of using oils found in lemons and oranges as ingredients for perfumes and flavorings. Some of the constituents of the fruits are thought to have use in the manufacture of cosmetics, while one of the problems of the research man is to separate the valuable vitamin C in citrus fruits so that it can be given in concentrated form to those individuals whose doctors tell them they need it.

The processing wastes of fruits—cores, peelings, seeds—have yielded substances used in the manufacture of stencil sheets, water-

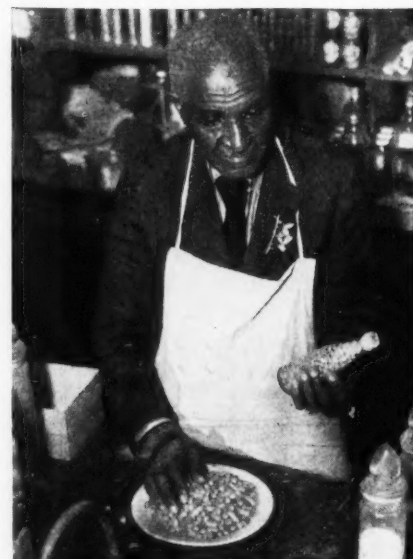
proof coatings, edible oils, soaps, paints, varnishes, plastics, floorings, fillers, insecticides, and so on down the list.

PEANUTS have always been a favorite of those given to Jules Verne predictions on the industrial future of the products of agriculture. Oil has been the peanut's password to the industrial laboratory up to now. Ninety percent of all peanut oil produced in the country today goes for shortening, oleomargarine, and other edible products. Now scientists see in the peanut a new source of plastics. The peanut hulls may be used as mild abrasives for burnishing steel and tin plate. Other products from the peanut include breakfast foods, high-protein flour, ice cream powders, dyes, inks, cosmetics, and medical products.

Last, but far from least on the farmer's list of products that may be used in the industrial plant of tomorrow, is linseed flax. From the oil of the seed, paints and varnishes are made. Linoleum and printing ink also list linseed oil among their constituents. From the straw of the seed are made upholstering material, floor covering, insulating boards, while from the stems come thread and twine.

Brightest star on the linseed horizon is the discovery that it makes a fiber that is excellent for cigarette paper. Our annual bill for cigarette paper, now imported, runs between 5 and 6 million dollars. Contrariwise, fiber from linseed flax is now destroyed or wasted. For growers of this now wasted fiber an industrial use may boost income.

FOR HALF a century a trail-blazer in industrial research on farm products, Dr. George Washington Carver, of Tuskegee Institute, Ala., has discovered more than 285 possible commercial uses for the lowly peanut.





A "HANDBOOK of Cooperative Health Associations" is one recent publication of the Public Affairs and Workers' Education Division of the Utah Works Progress Administration. Other mimeographed publications of this Division have included manuals on consumers' cooperatives, producers' cooperatives, cooperative accounting, and cooperative education; and a general "Manual on Consumer Problems" (see "Utah Consumers Work Together," in the *Guide* for November 7, 1938).

The "Handbook of Cooperative Health Associations" attempts to give a picture of health conditions in the United States and in Utah. It describes, on the basis of statistical studies, some unmet health needs. It stresses the importance of preventive medicine.

Cooperative principles are discussed in general, and in their relation to medical care. Finally, the booklet gives pointers on cooperative organization of consumers to meet their needs for medical care, dental treatment, and hospitalization. It does not advance the cooperative method as a panacea. But for those who are studying cooperative organization for health, practical problems are discussed, such as the scale of fees, allocation of dues, "membership abuse," and transportation of doctor. Accounting suggestions are offered, and several sets of bylaws, and agreements between health associations and doctors and hospitals, are reproduced.

A very limited supply of these handbooks is available from the Utah WPA.

THE STORY of farmers' cooperatives is being written up, State by State, by experts in the Farm Credit Administration. Pamphlets have already appeared covering the cooperatives in Virginia, Nebraska, Kansas, Ohio, and Colorado.

A number of other stories are now in press, though there will, of course, be no attempt to cover every State. Copies of those State studies which have been printed may be obtained free of charge from the Farm Credit Administration, Washington, D. C.

"YOU AND YOUR CO-OP" is the title of another series which is now being put out by the Farm Credit Administration for farmers'

discussion groups and vocational education classes in agriculture.

Eleven of the booklets take up the problems of farmers' co-ops in the marketing of a number of farm commodities, and in cooperative purchasing, insuring, financing. A few of the titles are "Using Your Co-op Creamery," "Using Your Co-op Gin," "Using Your Purchasing Association." Wool co-ops, livestock co-ops, poultry and egg associations, fruit and vegetable co-ops, fluid milk co-ops, cooperative elevators, will also be taken up. Generally these bulletins will follow an outline of this sort:

- "Becoming a member of the cooperative.
- "Helping to finance the cooperative.
- "Helping to run the cooperative.
- "Extending the services of the cooperative.
- "Helping to adapt the cooperative to changing conditions."

Seven other bulletins tackle special problems of farmers' cooperatives. The titles are self-explanatory:

- "Sizing Up Your Cooperative."
- "Forming Farmers' Cooperatives."
- "Financing Farmers' Cooperatives."
- "Managing Farmers' Cooperatives."
- "Merchandising by Farmers' Cooperatives."
- "The Story of Farmers' Cooperatives."
- "The Government's Policy Toward Farmers' Cooperatives."

"The Story of Farmers' Cooperatives," already out, briefly traces a hundred years of American rural cooperation in 20 pages. Other bulletins in the series get from 12 to 32 pages.

Finally, for the use chiefly of teachers, there is a pamphlet called "Using a Local Co-operative as Source Material for Teaching."

Copies of these bulletins may be had without charge, as they are issued, by writing the Farm Credit Administration in Washington.

MUSIC lovers are the latest group to use the cooperative method to get what they want. Under the auspices of a cooperative book club, organized on a national basis with headquarters in New York City, a group of phonograph record enthusiasts have made ar-

rangements for a Nation-wide mail order co-operative service.

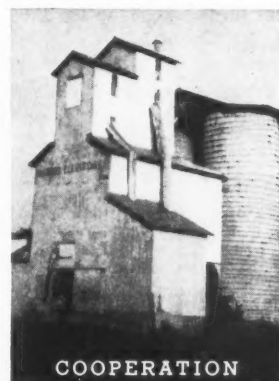
The plan is to supply records on order. Individuals will buy on a retail basis; cooperative societies, libraries, and schools on a wholesale basis. Rochdale principles will govern the organization of the new co-op, and the distribution of its net gains, if any. Each month the publication of the co-op book club will carry news of the phonograph record world.

IMPROVEMENT and standardization of accounting practices occupied the attention of cooperators at the recent meeting in Milltown, Wis., of the National Society of Cooperative Accountants. Some of the technical problems discussed were: The scope of a cooperative audit, income tax problems of cooperatives, forms for simplified balance sheets, auditing cooperative wholesales, making financial statements clearer to members.

The society was formed in 1936. It now includes half a hundred members from 16 States and 15 different cooperative auditing services or auditing departments of cooperative associations.

THE WORLD'S FAIR has been used by New York cooperatives as an occasion to show interested out-of-towners what cooperatives are trying to do in the world's largest city. A "Cooperative Center" in the central part of the city has been set up by local groups and several cooperative wholesales.

Visitors are invited to inspect a cooperative apartment community, a national mail order co-op headquarters and salesroom, a cooperative mail order book club, the Bureau of Cooperative Medicine, the original office of the Cooperative League, a chain of 8 cooperative restaurants, said to be the only co-op restaurant chain in the world, a regional cooperative wholesale specializing in groceries, and its testing kitchen. Movies are exhibited of cooperatives in action in Nova Scotia, France, and the United States.



14 UPPER BRACKETS of Government grade label specifications only will be used in specifications for foods packaged under their own cooperative label, buyers for 5 cooperative wholesale associations recently voted. The uniform labels are being used, by the buying federation of these 5 wholesales, for the 500-odd co-op groceries they serve in 25 States.

MUCH TALKED of these days are plans for better coordination of cooperative activities within the cities where co-ops have more or less commenced to take hold. From Philadelphia, the Eastern Cooperative League reports that meetings are being held to discuss the pros and cons of a loosely-knit federation for the co-ops in that city's metropolitan area.

In New York, a committee has completed a year's study of the possibility of federating the city's 58 consumer societies.

A meeting of the delegates from New York City societies in June made three main recommendations with regard to the proposed Metropolitan Cooperative Federation:

"First, that the function of the federation be purely advisory and not punitive; second, that membership include study clubs; and third, that the functions of the federation should be complementary to the activities of the Eastern Cooperative League and in no way conflict with its program."

In October delegates will gather again for action on the redrafted proposals, which are now before the city's cooperatives.

RECENTLY much talk has been heard of the advantages to consumer cooperatives in having their own banking and financial structure. Farmers have for some time been accustomed to special banks for cooperative credit for production, processing, and marketing activities.

A controlling interest in a State bank at Beech Grove, Ind., has just been purchased by several Indiana cooperative associations, credit unions, and other nonprofit groups. The credit unions and cooperatives have already seated a majority of the bank's board of directors.

Explaining the move, the manager of the Indiana Farm Bureau Cooperative Association states: "This move has been sponsored particularly by the Indiana Farm Bureau Cooperative Association in order to put a definite plan and system behind its own financing operations and services. Under the plan anticipated, ultimately all the stock in the corporation except directors' shares will be held by wholesale cooperative associations, retail cooperatives, credit unions, and other nonprofit corporations."

The South Looks to the Soil

[Concluded from page 5]

less encouragement, to rebuild the soil, to plant soil-building crops, to pursue long-time fertilizing practices, to contour plant, to terrace, to plant trees, to build dams, to fill gullies. In their pressure for cash, insecure farmers deplete their soil capital, and thereby deplete their future earning power. In almost every Southern State, half of the tenants stay 1 year or less on the same farm.

Insecurity cuts into human beings. It makes for undernourished people. Undernourishment tears down the defenses against pellagra, malaria, hookworm. Weakened and unsheltered bodies make poor workers, listless citizens, hopeless fighters in the war against want.

These are the conditions—many of them true of other farm families—which have brought into being a half-dozen programs to help agriculture. The Nation, through its Congress, has said it is time to call a halt on the insecurity that grows out of uncertain, fluctuating, and inadequate markets. It is time to call a halt on pressures that force farmers to mine their soil. It is time to call a halt on diets that fail to build bodies and spirits that are sturdy and joyous. Not only the people who live on farms, but the whole Nation, has an investment in the welfare of farm people. The whole Nation is trying to make good that investment.

SPEARHEAD of this attack on underprivilege is the AAA Farm Program. It aims at big goals; steadier and better income from major crops; conservation of soil from which future income can be drawn; steadier production of foods and fibers for all consumers at prices fair to farmers and consumers; healthier people living on the land.

AAA provides farmers with the recommendations for adjusting the number of acres they will plant to cash crops, so that the yields from those acres will not overtax the markets where cotton can be sold. If this fails to do the job, it provides farmers with loans to hold back from the market too abundant crops. It provides money for making "parity price payments" when prices for crops fail to come anywhere near pre-war purchasing power.

Tying in with AAA efforts to get bigger incomes are the programs of the Farm Credit Administration, which lends money to farmers to tide them over from planting to harvest; the reciprocal trade agreement program of the State Department which tries to build bigger markets abroad; and Agricultural

Marketing Service, which undertakes diversion and export programs for increasing sales abroad.

Such programs lend direct help to farmers' incomes. Others help indirectly, but as importantly. Money spent to put purchasing power in the hands of the unemployed moves back into farmers' hands when these people go to shop for the products that farmers grow. Laws that help low income workers get better wages push upwards, too, on farmers' markets.

The AAA Farm Program links arms with other agencies in aiding farm families to conserve soil. Payments for soil conservation go to farmers who plant grasses and legumes; who terrace their land; who plant trees, fill gullies. All this ties in with the work of the Soil Conservation Service and the Experiment Stations in studying how farmers can best hold the topsoil from which crops must grow, and in giving them practical demonstration of good techniques.

Finally, the AAA joins with the Farm Security Administration, the Extension Service, and many teachers and schools to point the way to better diets. Wise soil building and conserving practices can do more than hold and build the land. They can lay the foundations for the kind of farming that makes possible raising for home use milk cows, chickens, and other livestock. They can make possible the production of vegetables, the development of orchards. AAA payments act like a leverage, prying open the opportunity to better food for the family. Farm Security reaches still lower to give a hand to families on the bottom income level, lending the money and counseling with them on farm and home plans that will reestablish their lives on a sound economic basis.

ALREADY thousands of Southern farm families are linked in this great effort toward better farming. This year from two-thirds to nine-tenths of the farmers in Southern States are participating in the AAA program; 6 out of every 10 farmers in Florida; 7 out of every 10 in Oklahoma; 8 out of 10 in Texas, Louisiana, and Georgia; 9 out of 10 in South Carolina, Alabama, Mississippi, and Arkansas.

Dollars added to pocketbooks and dollars invested in better farming practices, can only pave the way to sturdy, healthy people. At the end of that road there must be, too, the knowledge of what makes a good diet, and the desire to consume those foods. Slowly this understanding and this desire grow. As they grow, the prospects for a healthier Nation increase. In the growing process, AAA plays its important part.

Summertime Is Lime Time

Vitamins as well as refreshing flavor come in this colorful fruit, most abundant in summer months, but found on consumer markets the year round



"LIMES," a Southern gentleman might have said a few decades ago, "are something the North knows nuthin' about."

And right he might have been, unless the Northerner had been lucky enough to have traveled to the South, the West Indies, the Philippines, or some other subtropical land. Until a few years ago limes rarely put in an appearance in the North. The business of packing and shipping this tender fruit was often a risky one. They were for the luxury market, but rarely for the drug store counter.

A turn-about has happened in the past few years. Lime production in Florida—practically the only State where they are grown on a commercial scale—increased over 6 times in the last 5 years. In 1934-35 farmers sold only 15,000 boxes. In the current year, the Bureau of Agricultural Economics estimates 95,000 boxes will go to market. That's small stuff when compared with the 8 or 9 million boxes of lemons that will come out of the California groves, but, regardless, limes have found their place in the sun—or better, on consumer market lists.

THAT ITS NEW PLACE is a pretty secure one is evidenced by the fact that the Bureau of Agricultural Economics has recently promulgated its first standards for Persian limes, the more common variety. Sales are important enough for growers and dealers to see the value in having definite quality standards to use in their buying and selling operations. Grades will be stamped on containers, so unless consumers buy directly from the large containers they won't see the grade mark.

Reason for the rapid increase in home produced limes has to do with hurricanes in the West Indies as well as with consumer appetites. Ten years ago, Dominica, in the British West Indies, shipped almost 39,000 boxes of the fruit to America's shores annu-

ally. Today the average annual shipment is about 7,000 boxes—all because tropical hurricanes and storms have practically ruined the Dominica lime groves. But this country still imports well over 150,000 boxes of limes annually, and the figure is going up. Most of our imported limes come from Mexico, with the balance leaving ports in the British West Indies, Cuba, St. Lucia, and Central American countries.

Prohibition did much to knock the bottom out of the market in limes; repeal had the opposite effect. Increased production in "dry" ginger ales has boosted the demand for lime juice, an essential ingredient of the drink.

The series of Florida hurricanes from 1926 to 1929 caused particular damage to the Key lime groves, and it was several years before the increasing demand for the fruit resulted in a rehabilitation of the industry.

CONSUMERS have their choice of the Persian lime (also known as Tahiti lime) or of the Key lime (also known as the Mexican lime).

The Persian lime is larger and contains more juice than the Key lime. Most of the Persian limes are seedless. Acid content of the juice is usually about 5 or 6 percent. They have a wide lead over the Key lime in consumer markets, and are grown domestically almost exclusively in Florida, whose climate is best suited for the tropical tree.

Persian limes are picked green for shipment. Tradesmen in the market prefer to receive them when green; they last longer on fruit stands. Often the limes turn from green to a light yellow by the time they reach consumer fruit bins. There is very little difference in the juice content of a fully developed green or yellow Persian lime.

Persian limes are favored by growers because they are hardy and immune to many of the citrus fruit diseases. Compared with



lemons, they have poor shipping and keeping qualities. They average about the same size as lemons. Look for those with smooth and glossy rind, thin skins, and a fine grained and very juicy pulp. In this condition they have flavor and juiciness.

THE KEY LIME—so-called because it is grown almost solely on the Florida Keys—has a more distinctive flavor than either the lemon or other limes. It is much smaller than the Persian lime, about 1½ inches in diameter, and is almost restricted in use to the making of ades and similar drinks. It outranks other citrus fruits in acid content and is used by manufacturers of citrate of lime and similar products.

Key limes are usually taken from the tree in a light-green condition or when they begin to turn yellow. They turn yellow in shipment or storage, though their juice content is usually fully developed when picked.

Like the rest of the citrus family, limes are triple-starred for vitamin C (Ascorbic acid). Compared measure for measure, limes are about equal to other citrus fruits as good year-round bulwarks against scurvy attacks.

Consumers can be sure of a good buy if they follow these hints: Limes should be firm, not soft or "mushy." Texture should be smooth, although signs of discoloration might pull prices down without affecting quality. Decay, bad color on the inside, broken skins, bad bruises, or skins that have turned hard and dry should be avoided. Color of the Persian lime, preferably, should be green, although limes that have just begun to turn yellow can also be of top quality if they are firm.

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